

CLAIMS

What is claimed is:

1. A method of forming retroreflective sheeting comprising the steps of:
 - a) forming a first mold by forming a plurality of grooves in a body of mold material, the grooves intersecting at an angle to form an array of prisms formed into pairs of prisms, each prism comprising a base aperture and three intersecting lateral faces which meet at an apex, each of the lateral faces having a base edge which forms a portion of the perimeter of the base aperture and said base edge of each lateral face intersects the base edge of a contiguous lateral face to form a base point, wherein a first face of at least one prism in the array includes a first face first planar surface and a first face second planar surface, the first face first planar surface and the first face second planar surface being contiguous along an edge having a first end point and a second end point which forms at least a portion of a middle aperture, wherein the apex, the first end point, and a first base point are coplanar and form a continuous edge from the first base point to the apex;
 - b) forming a second mold in the first mold, the second mold comprising a negative prism array pattern;
 - c) forming said sheeting in said second mold; and
 - d) removing the sheeting from the second mold.
2. The method of Claim 1, wherein a second face of the prism having the first face first planar surface and the first face second planar surface includes a second face first planar surface and a second face second planar surface.

3. The method of Claim 2, wherein a third face of the prism having the first face first planar surface and the first face second planar surface includes a third face first planar surface and a third face second planar surface.
4. The mold of Claim 1, wherein at least one base edge of the prisms includes a length between about 0.002 and 0.05 inches (0.0508 and 1.27 millimeters).
5. A method comprising forming retroreflective sheeting that includes an array of transparent prisms formed into pairs of prisms, each prism comprising a base aperture and three intersecting lateral faces which meet at an apex, each of the lateral faces having a base edge which forms a portion of the perimeter of the base aperture and said base edge of each lateral face intersects the base edge of a contiguous lateral face to form a base point, wherein a first face of at least one prism in the array includes at least a first face first planar surface and a first face second planar surface, the first face first planar surface and the first face second planar surface being contiguous along an edge having a first end point and a second end point which forms at least a portion of a middle aperture, wherein the apex, the first end point, and a first base point are coplanar and form a continuous edge from the first base point to the apex.
6. The method of Claim 5, wherein a second face of the prism having the first face first planar surface and the first face second planar surface includes a second face first planar surface and a second face second planar surface.
7. The method of Claim 6, wherein a third face of the prism having the first face first planar surface and the first face second planar surface includes a third face first planar surface and a third face second planar surface.

-21-

8. The method of Claim 5, wherein the first face first planar surface and the first face second planar surface form a convex shape as viewed from the exterior of the prism.
9. The method of Claim 5, wherein the first face first planar surface and the first face second planar surface form a concave shape as viewed from the exterior of the prism.
10. The method of Claim 5, further comprising providing a metalized layer on at least some of the lateral faces.
11. The method of Claim 5, wherein the lateral faces are air-backed.
12. The method of Claim 5, wherein at least one base edge of a prism includes a length between about 0.002 and 0.05 inches (0.0508 and 1.27 millimeters).
13. The method of Claim 5, further comprising forming the array of prisms such that they are negatively canted.
14. The method of Claim 13, wherein the array of prisms are canted between about negative one and negative fifteen degrees.
15. The method of Claim 1, further comprising forming the array of prisms such that they are positively canted.
16. The method of Claim 15, wherein the array of prisms are canted between about one and fifteen degrees.

17. A method comprising forming a prism for use in retroreflective sheeting, the prism including a base aperture and three intersecting lateral faces which meet at an apex, each of the lateral faces having a base edge which forms a portion of the perimeter of the base aperture and said base edge of each lateral face intersects a base edge of a contiguous lateral face to form a base point, wherein a first face includes a first face first planar surface and a first face second planar surface, the first face first planar surface and the second planar surface being contiguous along an edge having a first end point and a second end point which forms at least a portion of a middle aperture, wherein the apex, the first end point, and a first base point are coplanar and form a continuous edge from the first base point to the apex.
18. The method of Claim 17, wherein a second face of the prism having the first face first planar surface and the first face second planar surface includes a second face first planar surface and a second face second planar surface.
19. The method of Claim 18, wherein a third face of the prism having the first face first planar surface and the first face second planar surface includes a third face first planar surface and a third face second planar surface.
20. A method comprising forming a mold for casting retroreflective prisms, the mold including a plurality of grooves in a body of mold material, the grooves intersecting at an angle to form an array of prisms formed into pairs of prisms, each prism comprising a base aperture and three intersecting lateral faces which meet at an vertex, each of the lateral faces having a base edge which forms a portion of the perimeter of the base aperture and said base edge of each lateral face intersects the base edge of a contiguous lateral face to form a base point, wherein a first face of at least one prism in the array includes a first face first planar surface and a first face second planar surface, the first face first planar

surface and the first face second planar surface being contiguous along an edge having a first end point and a second end point which forms at least a portion of a middle aperture, wherein the vertex, the first end point, and a first base point are coplanar and form a continuous edge from the first base point to the vertex.